

WHAT IS CLAIMED IS:

1. A flat panel display device comprising:
 - a substrate;
 - a plurality of lines formed above the substrate, each line having a pad;
 - a first layer positioned above the substrate to cover at least a portion of the substrate, wherein the first layer exposes the pad of the each line and defines at least one opening near the pad, the opening having a depth lower than the surface of the first layer; and
 - a second layer having a first part and a second part, wherein the first part is affixed to the pad to provide an electrical signal to the line and the second part is affixed to the opening defined in the first layer to enhance adhesion between the first and second layers.
2. The flat panel display device of claim 1, wherein the first part of the second layer is a conductive portion and the second part is an insulating portion.
3. The flat panel display device of claim 1, further including a third layer disposed between the second layer and the first layer, wherein the third layer affixes the first part to the pad and the second part to the substrate through the at least one opening defined in the first layer.

4. The flat panel display device of claim 2, further including a third layer disposed between the second layer and the first layer, wherein the third layer affixes the conductive portion to the pad and the insulating portion to the substrate through the at least one opening defined in the first layer.

5. The flat panel display device of claim 2, wherein the second layer is a tape carrier package.

6. The flat panel display device of claim 3, wherein the third layer is an anisotropic conductive film.

7. The flat panel display device of claim 1, wherein the at least one opening defined in the first layer extends to the substrate.

8. The flat panel display panel of claim 1, wherein the first layer defines a plurality of openings for securing the second layer with the first layer.

9. The flat panel display panel of claim 1, wherein the first layer is an insulating layer.

10. An active panel of a liquid crystal display device comprising:

a substrate;

a gate line formed on the substrate;

a gate pad formed at the end of the gate line;
a gate insulating layer covering the gate line and the gate pad;
a source line crossing the gate line on the gate insulating layer;
a source pad formed at the end of the source line;
a passivation layer covering the source line and the source pad;
a gate contact hole exposing the gate pad;
a source contact hole exposing the source pad, wherein the passivation layer defines at least one hole exposing at least a portion of the substrate between the gate pad and the source pad.

11. The active panel of claim 10, further comprising:
a gate electrode derived from the gate line;
a semiconductor layer formed on the gate insulating layer over the gate electrode;
5 a source electrode derived from the source line and making ohmic contact with a first part of the semiconductor layer;
a drain electrode making ohmic contact with a second part of the semiconductor layer;
a drain contact hole exposing the drain electrode;
10 a gate pad terminal connected to the gate pad through the gate contact hole;
a source pad terminal connected to the source pad through the source contact hole;
a pixel electrode connected to the drain electrode through

the drain contact hole; and

a connector including a conductive pad connected to the gate pad and the source pad and an insulating film affixed to the at least a portion of the substrate exposed through the hole.

5 12. A method for manufacturing an active panel of a liquid crystal display device, comprising steps of:

providing a substrate;

fabricating a plurality of lines above the substrate, each line having a pad;

10 forming a first layer above the substrate to cover at least a portion of the substrate, wherein the first layer exposes the pad of the each line and defines at least one opening near the pad, the opening having a depth lower than the surface of the first layer; and

15 forming a second layer having a first part and a second part, wherein the first part is affixed to the pad to provide an electrical signal to the line and the second part is affixed to a bottom surface of the opening defined in the first layer to enhance adhesion between the first and second layers.

20 13. The method of claim 12, wherein the first part of the second layer is a conductive portion and the second part is an insulating portion.

14. The method of claim 12, further including
forming a third layer between the second layer and the first

layer, wherein the third layer affixes the first part to the pad and the second part to the substrate through the at least one opening defined in the first layer.

15. The method of claim 13, further including

5 forming a third layer disposed between the second layer and the first layer, wherein the third layer affixes the conductive portion to the pad and the insulating portion to the substrate through the at least one opening defined in the first layer.

10 16. The method of claim 13, wherein the second layer is a tape carrier package.

17. The method of claim 14, wherein the third layer is an anisotropic conductive film.

15 18. The method of claim 12, wherein the at least one opening defined in the first layer is fabricated to extend to the substrate.

19. The method of claim 12, wherein the first layer defines a plurality of openings for securing the second layer above the first layer.

20. The method of claim 18, further including

20 forming a third layer between the second layer and the first layer, wherein the third layer affixes the first part to the pad

and the second part to the substrate through the at least one opening defined in the first layer.

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